



TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID : CP-2018-08-13-07 Date: 14-08-18
 Customer : Assistant Executive Engineer, T.Dansarhalli Sub Division, BBMP, Bangalore
 Address : T.Dansarhalli Sub Division, BBMP, Bangalore
 Project Name : Improvements to roads and drains at between 5th main & 6th cross roads Marjunatha Nagara in Ward No 14 Bagalagunte
 Agency : Technical Manager West, K.R.I.D.L., Project Implementation Unit, No.280, 59th Cross, 17th C Main road, 3rd Y Block, Rajajinagar, Bangalore-560010
 Customer's Reference : BBMP/EE/DD/WO/76/2017-18
 Source of Sample : Sample supplied by Agency
 Sample Condition : Satisfactory
 Date of Receipt : 13-08-18
 Sample ID No : 2018-08-13-07 /01
 Sample Type : Birla Super 53grade
 Reference to BIS codes :
 IS 12269 : 2013, 53 Grade Ordinary Portland cement Specification ,
 IS 4031 (Part 1,2,3,4,5,6,11) 1988
 IS 4031 Part 1 DETERMINATION OF FINENESS BY DRY SIEVING, Clause 4.4
 IS 4031 Part 2, Determination of Fineness by Blaine Air Permeability Method, Clause 5
 IS 4031 Part 3, Determination of Soundness, Clause 5, Clause 6
 IS 4031 Part 4, Determination of Consistency of Standard Cement Paste, Clause 5
 IS 4031 Part 5, Determination of Initial & Final Setting Time, Clause 5
 IS 4031 Part 11, DETERMINATION OF DENSITY , Clause 6

Date of test : 14-08-18

Environmental Conditions during test : Temperature 26°C
Humidity 72%

SLNo.	Physical properties	Results	Requirement as per IS 12269: 2013
1	Fineness by dry sieving (%)	1.95	-
2	Finess by Air permeability method (m ² /kg,Min)	285.4	225m ² /kg, Min
3	Density (gm/cc)	3.12	-
4	Standard Consistency (%)	29.5%	Not specified
5	Initial Setting time	145 minutes	Not less than 30 minutes
6	Final Setting time	240 minutes	Not more than 600 minutes
7	Soundness (Le Chutelier's Method)	1.5mm	Not more than 10 mm

Note:

The results pertain to the samples received and tested
 All information furnished by Customer/Representative
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 Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL PRO.

R. Karthik Rechan

R KARTHIK RECHAN

Authorized Signatory
Quality Manager



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****End of Report****

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TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID	CP-2018-08-13-07	Date: 11-09-18	
Customer	Assistant Executive Engineer, T.Dasarahalli Sub Division, BBMP, Bangalore.		
Address	T.Dasarahalli Sub Division, BBMP, Bangalore.		
Project Name	Improvements to roads and drains at between 5th main & 6th cross roads		
Agency	Manjunatha Nagara in Ward No.14 Bagalagunte		
Customer's Reference	Technical Manager West, K.R.I.D.I., Project Implementation Unit, No.280, 59th		
Source of Sample	Cross, 17th C Main road, 3rd Y Block, Rajajinagar, Bangalore-560010		
Sample Condition	BBMP/EL/DD/WO/76/2017-18		
Date of Receipt	Sample supplied by Agency		
Sample ID No	Satisfactory		
Sample Type	13-08-18		
Reference to BIS codes	2018-08-13-07 /01		
	Birla Super 53grade		
	IS 12269 : 2013, 53 Grade Ordinary Portland cement Specification		
	IS 4031 Part 4, Determination of Consistency of Standard Cement Paste, Clause 5		
	IS 4031 Part 6, Determination of Compressive Strength, Clause 6		
	14-08-18		

Date of test :
Environmental Conditions during test : Temperature: 26°C
Humidity: 72%

Compressive Strength

S.No.	Physical properties	Results	Requirement as per IS 12269: 2013
1	3 Days	28.5N/mm ²	Not less than 27 N/mm ²
2	7 Days	39.0N/mm ²	Not less than 37 N/mm ²
3	28 Days	55.0N/mm ²	Not less than 53 N/mm ²

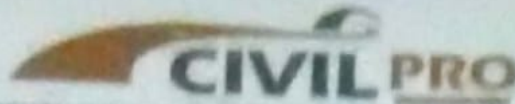
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(Signature)
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Quality Manager

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(Signature)
R KARTHIK RECHAN
Authorized Signatory
Quality Manager





AN ISO 9001 : 2008 COMPANY AND ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE - 5



Certificate No.: CP/TP/04

Form No: CP/TP/04

TEST REPORT ON COARSE AGGREGATES

Lab ID : CP-2018-08-13-07 Date: 16-08-18
Customer : Assistant Executive Engineer, T.Dasarahalli Sub Division, BBMP, Bangalore.
Address : T.Dasarahalli Sub Division, BBMP, Bangalore.
Project Name : Improvements to roads and drains at between 5th main & 6th cross roads Manjunatha Nagara in Ward No. 14 Bangalore
Agency : Technical Manager West, K.R.I.D.L., Project Implementation Unit, No.280, 59th Cross, 17th C Main road, 3rd Y Block, Rajajinagar, Bangalore-560010
Customer's Reference : BBMP/EE/DD/WO/76/2017-18
Source of Sample : Sample supplied by Agency
Sample condition : Satisfactory
Date of Receipt : 13-08-18
Sample ID No : 2018-08-13-07 /02(a)
Sample Type : 40mm down size coarse aggregate
Reference to BIS codes : IS: 383:2016 (Specification for Coarse and fine Aggregates)
IS: 2386 :1963(Part - 1,3,4) RA2011
IS 2386 Part 1: Particle Size and Shape
IS 2386 Part 3: Specific gravity, Density, Voids, Water Absorption
IS 2386 Part 4: Mechanical Properties
Date of test : 13-08-18

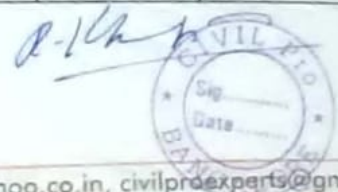
SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF 40MM DOWN COARSE AGGREGATE:

Total weight taken : 15000 grams

Sample No.	Sieve No.	Weight Retained in gms	Cumulative Weight Retained in gms	% Cumulative Weight Retained	% Passing	Required as per IS 383:2016
1	80 mm	0	0	0.0	100	100
2	40 mm	244	244	1.6	98.4	90-100
3	20 mm	5432	5676	37.8	62.2	30-70
4	10 mm	4332	10008	66.7	33.3	10-35
5	4.75 mm	4654	14662	97.7	2.3	0-5
6	Pan	338	15000	100.0	0	—

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Signature



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TEST REPORT ON COARSE AGGREGATES

Form No: CP/001

Lab ID

: CP-2018-08-13-07

Date: 16-08-18

Sample ID No

: 2018-08-13-07 AGG(a)

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS:383-2016
1	Flakiness Index(%)	12.4	Combined Flakiness & Elongation Index shall not exceed 40% for Uncoated & Crushed Aggregates
2	Elongation Index(%)	11.8	
3	Specific Gravity	2.68	
4	Bulk Density(Loose) (Kg/l)	1.48	
5	Bulk Density(Compacted) (Kg/l)	1.52	
6	Water Absorption(%)	0.22	

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Signature

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Signature

R KARTHIK RECHAN
Authorized Signatory
Quality Manager



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****End of Report****

TEST REPORT ON COARSE AGGREGATES

Lab ID : CP-2018-08-13-07 Date: 16-08-18
 Customer : Assistant Executive Engineer, T.Dasarahalli Sub Division, BBMP, Bangalore.
 Address : T.Dasarahalli Sub Division, BBMP, Bangalore.
 Project Name : Improvements to roads and drains at between 5th main & 6th cross roads Manjunatha Nagara in Ward No 14 Bagalagunte
 Agency : Technical Manager West, K.R.I.D.L, Project Implementation Unit, No.280, 59th Cross, 17th C Main road, 3rd Y Block, Rajajinagar, Bangalore-560010
 Customer Reference : BBMP/EE/DD/WO/76/2017-18
 Source of Sample : Sample supplied by Agency
 Sample Condition : Satisfactory
 Date of Receipt : 13-08-18
 Sample ID No : 2018-08-13-07 /02(b)
 Sample Type/ Size : 20mm down size coarse aggregate
 Reference to BIS codes : IS: 383:2016 (Specification for Coarse and fine Aggregates)
 IS: 2386 :1963(Part - 1,3,4) RA2011
 IS 2386 Part 1: Particle Size and Shape
 IS 2386 Part 3: Specific gravity, Density, Voids, Water Absorption
 IS 2386 Part 4: Mechanical Properties
 Date of test : 13-08-18

SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF 20MM DOWN COARSE AGGREGATE:

Total weight taken : 5000 grams

Sample No.	Sieve No.	Weight Retained in gms	Cumulative Weight Retained in gms	% Cumulative Weight Retained	% Passing	Required as per IS 383:2016
1	40 mm	0	0	0	100	100
2	20 mm	245	245	4.9	95.1	90-100
3	10 mm	2560	2805	56.1	43.9	25-55
4	4.75 mm	2033	4838	96.8	3.2	0-10
5	Pan	162	5000	100	0	-

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Signature
 Date: 16-08-2018
 Location: Bangalore



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Form No: CP/TE/01

TEST REPORT ON COARSE AGGREGATES

Lab ID

CP-2018-08-13-07

Date: 16-08-18

Sample ID No

2018-08-13-07 /02(b)

PHYSICAL PROPERTIES

Sr.No	Tests	Result	Requirements as per IS:383-2016
1	Flakiness Index(%)	13.2	Combined Flakiness & Elongation Index Shall not Exceed 40% for Uncrushed & Crushed Aggregate
2	Elongation Index(%)	12.6	
3	Specific Gravity	2.66	
4	Bulk Density(Loose) (Kg/l)	1.54	
5	Bulk Density(Compacted) (Kg/l)	1.58	
6	Water Absorption(%)	0.22	
7	Aggregate crushing Value(%)	24.5	Max 30% for Aggregates to be used in concrete for wearing Surface. In case Aggregate Crushing Value Exceeds 30% then the test for ten percent fines should be conducted for Aggregates to be used in concrete other than for wearing Surface.
8	Aggregate Impact Value(%)	22.8	30% for Aggregates to be used in concrete for wearing Surface. 45% for Aggregates to be used in concrete other than for wearing Surface.

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